

REMARKS/ARGUMENTS

In the above-mentioned Office Action, claims 23-25, 39, 46-48 and 52 were rejected as being anticipated by Cordery (U.S. Patent 5,005,001), claims 23-25, 39, 46-48 were rejected as being anticipated by Gallagher, III, et al. (U.S. Patent 6,166,706), claims 26-29, 31-37, 42, 43, 45, 49-59, 61 and 62 were rejected as being unpatentable over Gallagher, and claims 30 and 44 were found to be allowable if rewritten in independent format. In response thereto, claims 23-25 and 39 have been canceled without prejudice or disclaimer, claims 26-33, 37, 42, 44 and 45 have been amended, and claims 63-92 have been added. Brief discussions of the patentability of each of the independent claims follow.

No rejection was made of claim 38 and so it is presumed by Applicant to have been allowed.

Claims 30 and 44 have been rewritten in independent format and thus are in condition for allowance.

Claim 46 was rejected as anticipated by Cordery and as being anticipated by Gallagher. These rejections are respectfully traversed. (See also dependent claims 57, 61, 89 and 91.)

Cordery does not create a field covering all orientations. For example, if his system attempted to read a true RFID resonant circuit oriented horizontally parallel and midway between the antennae in Fig. 5, there would be no energizing field along the axis and the tag would fail to read.

Similar to Cordery, Gallagher also will have a "dead zone" for tags oriented horizontally parallel to the antennae.

Claim 63 is old dependent claim 33, written in independent format. The "third antenna" as claimed in the final paragraph thereof including the "signal... to precess said composite magnetic field" is not suggested by the references. (See also dependent claims 55, 56, 64, 87 and 88.)

The examiner in his rejection of claim 33 stated that "the pick-up coil is analogous to the three loop antenna." Applicant respectfully disagrees. First, a test

under 35 U.S.C. 103(a) is not an "analogous" test. Second, the "pick up coil" is an input device, while the three loop antenna outputs signal on all three loops. (See also dependent claims 28, 33, 42, 51, 73, 76 and 77.)

New independent claim 67 is old dependent claim 42, written in independent format. The "third antenna" as claimed in the final paragraph of that claim is patentable for reasons set forth above with respect to claim 63.

New independent claim 79 in addition to "a plurality of coil means..." includes series drive capacitors and parallel tank capacitors providing an impedance matching network. (See also independent claim 68 and dependent claims 54 and 58.) Gallagher does not disclose this element since it implies phase shifting not impedance matching.


Referring to the second paragraph of new independent claim 92 (and dependent claim 80), Gallagher's capacitors 22, 24 are only series coupling capacitors, which cannot independently set the resonant frequency and the impedance seen by the drive amplifier. And Gallagher's tuning capacitors 30 and 32 adjust only the resonant frequency and phase of the inductively driven coil. The combination of series and tank capacitors in Applicant's circuit(s) allows the independent adjustment of both resonant frequency and input impedance. This is important because: (a) it allows the voltage across the antenna to be independent of the reactive power circulating in the system; (b) it allows the use of lower voltage, less expensive capacitors at high powers; and (c) drive currents can be much lower than circulating currents.

Accordingly, it is respectfully contended that all of the claims now pending are patentable over the prior art of record. Issuance of the Notice of Allowance at an early date is in order.

If there are any remaining issues, the examiner is encouraged to telephone the below-signed counsel at (213) 689-5142 to seek to resolve them.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 07-1853. Should such additional fees be associated with an extension of time, Applicant respectfully requests that this paper be considered a petition therefor.

Respectfully submitted,



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Dated: February 25, 2004

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